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THE DIFFICULTY OF LATIN WORDS, FORMS, AND CONSTRUCTIONS OF VARYING DEGREES OF FREQUENCY IN HIGH SCHOOL LATIN

RESULTS OF EXPERIMENTS WITH ELEVEN STUDENTS

It is now generally assumed in the teaching of foreign languages that the most important criterion for the choice of words, forms, and constructions to be studied is that of frequency of occurrence in the subject matter to be read¹. This, I believe, is a sound assumption, especially if a reading knowledge of the language be accepted as the chief objective of foreign language study. The various word books, etc., listed in note 1 to this paper have been very valuable and will continue to be very valuable for makers of syllabuses and textbooks, teachers, and investigators in the pedagogy of foreign language study. It would seem almost axiomatic that a word which is met very often by the student would be known by him, and that, on the other hand, a word which is met very seldom by the student would be much less likely to be recognized by him. However, as I showed in an earlier study², in the matter of constructions in Latin there is often a baffling lack of correlation between difficulty and frequency. Professor Huse has pointed out that the need for drill on a given word is determined both by its importance (frequency) and by its difficulty. A word like *action*, for example, which is identical in the French and the English languages, needs no drill whatever, although it may be quite frequent and important. On the other hand, *peu*, having no correlation in the two languages, needs drill in proportion to its frequency. Using nonsense words, Professor Huse found³ that words of this type that had no connection

in the two languages (French and English) furnished far greater learning difficulty.

In the hope of throwing further light on this problem I undertook this study. All experienced teachers know that much drill is needed to clinch the students' knowledge of words, forms, and constructions, but no teacher, if he be sensible, desires to drill students on material they already know. Some teachers maintain that, if a student meets a word or a form often enough in his reading, he will come to know it. Will he? In this, as in the case of many other theories and beliefs held in connection with the teaching of language, we make a statement, but give no objective evidence to prove our dictum. It *ought* to be so; therefore, we assume, it *is* so. In this paper I shall set forth certain definite data in regard to the difficulty and frequency of certain Latin words, forms, and constructions. In most instances I shall be unable to explain the cause which produces the results shown by the data.

For a reading knowledge of a language only a recognition knowledge of words, forms, and constructions is required. I therefore tested the students' ability merely to recognize certain words, forms, and constructions of varying frequency in Latin which they had read.

The Kinds of Tests Used

Three tests were given, one on words, one on forms, one on constructions. All were of the objective type. For the Vocabulary Test 83 Latin words were given in the first column, 83 English words in the second column. The words were numbered in both lists. The students' task was to match the Latin word with its English equivalent by writing the number of the English word in the parenthesis before the Latin word. For the Form Test 59 verb-forms, noun-forms, and pronoun-forms were used. These were so arranged that the students could indicate the tense, person, number and mood, or number and case by making a single mark. For the Syntax Test 50 simple Latin sentences were used; in each an underlined word or words illustrated a principle of Latin syntax. The names of these constructions were given on a second page, and the students' task was to match the underlined word or words with the numbers of the constructions.

Material Used in the Tests

In determining what words, constructions, and forms were to be included in the tests, I used Professor Lodge's Vocabulary of High School Latin, Mr. Byrne's Syntax of High School Latin, and the Lohr-Latshaw Latin

¹This assumption played a part in the preparation of the following works: Gonzalez Lodge, Vocabulary of High School Latin (New York, Teachers College, Columbia University, 1909); <Barclay W. Bradley, An Index of Latin Syntax for High School Prose (Associated Book Store, Los Angeles, California, 1929). C. K.>; Lee Byrne, Syntax of High School Latin, Revised Edition (University of Chicago Press, 1918); College Entrance Examination Board Latin List (New York, College Entrance Examination Board, 1927); New York State Syllabus in Ancient Languages (Albany, The University of the State of New York, 1928); Stephen A. Hurlbut and Bernard M. Allen, A Latin Vocabulary for First and Second Years (New York, American Book Company, 1928); E. Y. Lindsay, An Etymological Study of the Ten Thousand Words in Thorndike's Teachers Word Book (University of Indiana, Bloomington, Indiana, 1927); M. A. Buchanan, A Graded Spanish Word Book (New York, Macmillan, 1927); B. O. Morgan, German Frequency Word Book (New York, Macmillan, 1928); E. F. Hauch, German Idiom List (New York, Macmillan, 1928); H. Keniston, Spanish Idiom List (New York, Macmillan, 1928); G. E. VanderBeke, French Word Book (New York, Macmillan, 1929); F. D. Cheydeleur, French Idiom List (New York, Macmillan, 1929).

²The Correlation Between the Difficulty of Latin Constructions and Their Frequency in High School Latin, The Classical Journal 24 (1929), 412-420.

³Compare H. R. Huse, The Psychology of Foreign Language Study (The University of North Carolina Press, 1931).

Form Test⁴. Also I made a count of the frequency of certain inflectional forms in the First Oration against Catiline. Since my tests were given to the students soon after they had finished reading some of the orations of Cicero, and since the preparation and the reading experience of these students were equal to those of the average third-year High School class in Latin, I chose the words from those in Professor Lodge's list which were indicated as the most important for students of Cicero, i. e. I chose the words from those described by Professor Lodge, *The Vocabulary of High School Latin*, Preface (v), in the following sentence: "...The 500 words printed in large Roman type are found most often or first in Cicero and should be learned by the end of the third year. . . ." These words ranged in number of occurrences in Cicero from 1 to 72. I chose 50 constructions which, according to Mr. Byrne, had frequencies in High School Latin ranging from 6 to 5,900. There is no frequency list for Latin forms that corresponds to Professor Lodge's list for Latin words and to Mr. Bryne's list for Latin syntax. Such forms as appear in the Lohr-Latshaw Test⁵ were chosen on a basis of frequency. Omitting certain duplicate forms I used 33 of the 35 forms presented in this Test. In constructing their test Messrs. Lohr and Latshaw used only relatively frequently occurring forms. Their method of choice of forms was as follows: (1) they examined sixteen first-year Latin books, and found the percentage of space given in these books to each of the conjugations (including *sum* and *possum*) and declensions, and to the demonstrative pronouns and the relative pronouns; (2) they examined Mr. Byrne's *Syntax of High School Latin* and found the frequencies of appearance of the various cases; (3) they counted the frequencies of voices, tenses, numbers, and persons in the first book of Caesar, *De Bello Gallico*, the first of Cicero's orations against Catiline, and the first book of Vergil's *Aeneid*, to find the proportion of verb-forms; (4) consulting Professor Lodge's *Vocabulary of High School Latin*, they chose the six nouns, the three pronouns, and the eight verbs most frequently occurring, and used only those words. In this way they worked out a list of forms—four first conjugation forms, five accusatives, six present indicatives, etc. In addition to these relatively frequently occurring forms, I used in my test 26 forms of rarer occurrence (including infinitives, participles, indicative and subjunctive passives, and some rarely occurring indefinite pronouns). I counted the frequency of these 26 forms in Cicero's First Oration against Catiline. Except in the case of the indefinite pronouns I used the same words as were used in the Lohr-Latshaw Test. In this way I had a list of 59 forms with a wide range of frequency.

⁴Mr. Lawrence L. Lohr published an article entitled *A Latin Form Test For Use in High School Classes*, in *The North Carolina High School Journal* 5 (1922), 217-223. Soon afterward Mr. Harry Franklin Latshaw published a pamphlet entitled *The Lohr-Latshaw Latin Form Test for High Schools* (Bureau of Educational Research, School of Education, University of North Carolina, Number 1, October, 1923. Pp. 47. Only pages 11-47 contain matter about the Test. C. K.).

⁵Compare Thomas H. Briggs, *The Lohr-Latshaw Test*, *The Classical Journal* 18 (1923), 451-465. <Professor Briggs is Professor of Education, Teachers College, Columbia University. C. K.>.

Administration of the Tests

The tests were given on three successive days. The students were permitted to take a whole class period for the completion of each test. Unfortunately the class was a small one; it contained only eleven members. However, there was a wide range of ability among these eleven members. I felt that the experiment would at least furnish a hint of what would (or might) happen in other classes.

Results of the Tests

I have indicated largely by Tables the results of the Tests.

Table 1

Words Arranged in Order of Frequency, With the Number of Students Missing Each Word

Frequency Rank	Word	Number of Occurrences	Numbers of Student Missing
1	civis	72	1
2	os, oris	66	10
3	ceterus	50	4
4	seelus	41	3
5	campus	24	2
6	ingenium	23	5
7	vivo	20	2
8	caedes	20	4
9	arbitror	20	4
10	perdo	19	11
11	pario	17	10
12	umquam	14	6
13	tabula	13	0
14	salvus	13	3
15	deleo	12	4
16	eripio	12	3
17	invenio	12	6
18	soleo	11	6
19	malo	11	8
20	antea	10	8
21	tueor	10	10
22	quondam	10	11
23	servo	10	7
24	vigilo	10	7
25	pereo	9	9
26	ars	9	1
27	adhuc	9	4
28	acs	8	6
29	opes	8	8
30	fateor	8	8
31	memini	8	9
32	adsum	8	2
33	aetas	8	5
34	ignoro	7	3
35	interest	7	4
36	praedico	7	4
37	censeo	7	11
38	comes	6	3
39	celebro	6	11
40	comprehendo	6	10
41	praetereo	6	9
42	otium	6	8
43	fallo	6	8
44	turpis	6	5
45	morior	6	3
46	rego	6	0
47	curia	5	1
48	supplicatio	5	4
49	colligo	5	5

Conclusion of Table 1

Words Arranged in Order of Frequency, With the Number of Students Missing Each Word

Frequency Rank	Word	Number of Occurrences	Number of Students Missing
50	placo	5	8
51	colo	5	8
52	nimis	5	10
53	vito	4	11
54	servio	4	10
55	avus	4	1
56	obliviscor	4	9
57	fax	4	9
58	pareo	4	8
59	pudor	4	8
60	odi	4	6
61	carcer	4	5
62	cresco	4	4
63	claudio	4	1
64	obsideo	4	1
65	uxor	3	0
66	quiesco	3	3
67	confligo	3	5
68	vicesimus	3	5
69	secerno	3	7
70	agrestis	3	7
71	latro	3	8
72	veneror	3	8
73	sino	2	11
74	sepelio	2	10
75	adipiscor	2	9
76	totiens	2	9
77	disco	2	8
78	argentum	2	8
79	vultus	2	7
80	suadeo	2	5
81	tango	1	0
82	bibo	1	5
83	antequam	1	6

Table 2

Number of Words Missed by the Students^{5a}

4, 0; 6, 1; 3, 2; 7, 3; 9, 4; 9, 5; 6, 6; 5, 7; 14, 8; 7, 9; 7, 10; 6, 11.

Table 3

Words Missed by None of the Students

(The figures give the number of occurrences of the words)

uxor, 3; tabula, 13; rego, 6; tango, 1.

All these words are relatively rare in Cicero; one (*tango*) occurs only once in Cicero. Why were the students so familiar with them? They recognized *tabula* probably because of its similarity to English, *rex* helped them to remember *rego*, and they recognized *tango* perhaps because I had mentioned the tango dance when we had met the Latin word in our reading. I can not explain why they should all remember *uxor*, which occurs only three times in Cicero.

Table 4

Words Missed by All the Students

(The figures give the number of occurrences of the words)

^{5a}In each pair of figures in this Table the first gives the number of words missed, the second gives the number of students missing the words.

censeo, 7^{5b}; vito, 4; cerebro, 6; sino, 2; quondam, 10; perdo, 19.

There seems to be a closer correlation between rare and hard words than between frequent and easy words. However, as a glance at Table 1 will show, both *quondam* and *perdo* are relatively frequently occurring words. All the words except *sino* and *vito* occur in the upper half of the list.

Table 5

Eleven Most Infrequently Occurring Words With the Number of Times They Were Missed

antequam, 6; bibo, 5; tango, 0; vultus, 7; argentum, 8; disco, 8; totiens, 9; adipiscor, 9; sepelio, 10; sino, 11; suadeo, 5. Eight of these ten words were missed by more than half of the students. However, *tango* (this occurs only once) was not missed by any student. Only one of these words (*sino*) was missed by all the students.

Table 6

The Thirteen Hardest Words (Those Missed by all or all but one of the Students), With their Frequencies (Number of Occurrences⁶)

censeo, 7; vito, 4; cerebro, 6; sino, 2; quondam, 10; perdo, 19; sepelio, 2; tueor, 10; comprehendo, 6; servio, 4; nimis, 5; os, 66; pario, 17.

Os, the next to the most frequently occurring word, is found in this list. *Perdo*, which is one of the ten most frequently occurring words, is also here. If we compare this list with the list of words occurring only once or twice (Table 5), we find that *sino* and *sepelio* are the only words common to both lists. This seems to show, strikingly, that it does not follow that, because a word occurs very rarely in the Latin read, it will be very hard for the student.

Table 7

The Ten Most Frequently Occurring Words and the Number of Times They Were Missed

civis, 1; os, 10; ceterus, 4; scelus, 3; campus, 2; ingenium, 5; vivo, 2; caedes, 4; arbitror, 4; perdo, 11.

Os (which occurs 66 times in Cicero) and *perdo* (which occurs 19 times in Cicero) were missed by 10 and 11 students. It is interesting to note that, while 4 of the 83 words were known by all the students, none of them was in this list of the ten most frequently occurring words. As Table 1 shows, of the words which come in the first half of the frequency list *tabula* was the only word missed by none of the students.

Table 8

The Ten Easiest Words and Their Frequencies (Number of Occurrences⁶)

tabula, 13; uxor, 3; rego, 6; tango, 1; ars, 9; obsideo, 4; civis, 72; curia, 5; claudio, 4; avus, 4.

Civis is the only word which one might expect to be in this list. *Tabula* is the only other word which occurs

^{6b}Since the total number of students tested was so small, these figures and like figures in various Tables, above and below, will be far more significant if they are translated into percentages (approximate, i.e. with omission of fractions). Here e.g. the percentages are 90, 36, etc. C. K.

⁶The expression "Number of Occurrences" refers to the number of times the words occur in Cicero, according to Professor Lodge's Vocabulary of High School Latin.

more than ten times in Cicero. *Tango*, which occurs only once in Cicero, seems strangely out of place. It is very evident that words are easy for students very often for some other reason than because they meet the words often in their reading. If we compare this list with the list of the ten most frequently occurring words (Table 7), we find that *civis* is the only word common to both lists. We must find some explanation other than frequency to explain why most of these words proved very easy to the students.

Table 9

Constructions Arranged in Order of Frequency, With the Number of Students Missing Each Construction

Frequency Rank	Construction	Number of Occurrences ⁷	Number of Students Missing
1	Direct Object	5900	0
2	Predicate Nominative	6088 ⁸	2
3	Possessive Genitive	2294	3
4	Ablative of Means	1478	6
5	Ablative of Place	1258	3
6	Accusative of Limit	1223	3
7	Infinitive in Indirect Discourse	1174	6
8	Ablative of Place from Which	1161	5
9	Accusative, subject of infinitive	1147	2
10	Accusative with certain prepositions	982	2
11	Complementary Infinitive	816	6
12	Ablative Absolute	729	2
13	Dative of Indirect Object	436	1
14	Ablative of Manner	432	6
15	Vocative	369	3
16	Dative with Compound Verbs	333	3
17	Ablative of Specification	292	10
18	Ablative of Accompaniment	281	3
19	Partitive Genitive	269	6
20	Infinitive as Object	259	7
21	Subordinate Clause in Indirect Discourse	243	8
22	Ablative of Cause	238	8
23	Ablative of Time	229	4
24	Indirect Question	215	3
25	Infinitive as Subject	212	5
26	Gerundive	208	11
27	<i>Cum</i> temporal (subjunctive)	190	4
28	Dative with special verbs	159	10
29	Ablative with certain prepositions	156	6
30	Passive Periphrastic	155	3
31	Volitive Dependent Clause	152	9
32	Relative Clause of Characteristic	152	8
33	Gerund	128	11
34	Ut-Clause of Purpose	118	4
35	Ut-Clause of Result	118	4
36	Dative with certain adjectives	115	9
37	Dative of Possession	105	8
38	Dative of Agent	100	9
39	Ablative of Description	94	7
40	Accusative of Extent, Duration	86	1
41	Ablative with deponent verbs	84	10

⁷The number of occurrences is taken from Mr. Bryne's *Syntax of High School Latin* (see note 1, above).

⁸The number includes the instances of the nominative as subject. Mr. Bryne groups all nominatives in one total.

Conclusion of Table 9

42	Genitive with certain adjectives	77	5
43	Ablative of Degree of Difference	76	4
44	Relative Clause of Purpose	67	11
45	Condition Contrary to Fact	55	5
46	Ablative of Comparison	22	5
47	Supine in <i>u</i>	16	6
48	Active Periphrastic	15	4
49	Substantive Clause of Fearing	12	6
50	Less Vivid Future Condition	6	6

Table 10

Number of Constructions Missed by Students

1, 0; 2, 1; 4, 2; 8, 3; 6, 4; 5, 5; 9, 6; 2, 7; 4, 8; 3, 9; 3, 10; 3, 11.

Only one construction was missed by none of the students. This was the Direct Object, the most frequently occurring construction.

Table 11

Constructions Missed by all the Students

Construction	Frequency Rank	Number of Occurrences
Gerundive	26	208
Relative Clause of Purpose	44	67
Gerund	33	128

All these constructions are in the latter half of the frequency list; all are verbal constructions. None of them, however, is of rare occurrence.

Table 12

The Ten Most Frequently Occurring Constructions, With the Number of Times They were Missed

Direct Object, 0; Predicate Noun, 2; Possessive Genitive, 3; Ablative of Means, 6; Ablative of Place, 3; Accusative of Limit, 3; Infinitive in Indirect Discourse, 6; Ablative of Place from Which, 5; Accusative, subject of infinitive, 2; Accusative with certain prepositions, 2.

Only two of these constructions were missed by more than half the students.

Table 13

Seven Easiest Constructions (Missed by not more than two students) and their Frequencies (Number of Occurrences)

Direct Object, 5,900; Indirect Object, 436; Accusative of Extent, 86; Predicate Noun, 6088 (including subject); Ablative Absolute, 729; Accusative with prepositions, 982; Accusative, subject of infinitive, 1147.

All these constructions (except the accusative of extent) are relatively frequent. Four (direct object, predicate nominative, ablative absolute, and accusative, subject of infinitive) are common to the above list and the list of the ten most frequently occurring constructions given in Table 12. There is a closer relation between frequency and difficulty in constructions than there was in words.

Table 14

Ten Least Frequently Occurring Constructions, With the Number of Students Missing Them

Less Vivid Future Condition, 6; Substantive Clause of Fearing, 6; Active Periphrastic, 4; Supine in *u*, 6; Ablative of Comparison, 5; Condition Contrary to

Fact, 5; Relative Clause of Purpose, 11; Ablative of Degree of Difference, 4; Genitive with certain adjectives, 5; Ablative with deponent verbs, 10.

Of these constructions only the ablative with deponent verbs and the relative clause of purpose seemed to be hard to most of the students.

Table 15

The Nine Hardest Constructions (Missed by Nine or More Students), With their Frequencies (Number of Occurrences)

Volitive Dependent Clause, 152; Dative with adjectives, 115; Dative of Agent, 100; Ablative of Specification, 292; Dative with special verbs, 159; Ablative with deponent verbs, 84; Gerundive, 208; Relative Clause of Purpose, 67; Gerund, 128.

It should be noticed that of these hard constructions only two occur less than 100 times, and that none of them is extremely uncommon in the Latin read. The ablative with deponent verbs and the Relative Clause of Purpose are the only constructions in the above list found also in the list of the least frequently occurring constructions (Table 14). The construction at the bottom of the frequency list was missed by only six of the eleven students. Evidently very rare constructions were not always hard for the students.

Table 16

Forms Arranged in Order of Frequency, With the Number of Students Missing Each Form

A. Forms in the Lohr-Latshaw Test

Frequency Rank	Form	Frequency ^a Tense, Case	Conjugation	Number of Students Missing
1	dicit	6	5	1
2	dixerunt	4	5	7
3	hostem	5	4	2
4	est	6	3	1
5	sunt	6	3	0
6	veniunt	6	2	7
7	vidit	4	4	7
8	locum	5	3	5
9	eos	5	3	1
10	civitate	3	4	2
11	pars	3	4	0
12	potuit	4	3	2
13	fuit	4	3	5
14	darent	3	4	6
15	ferat	2	5	7
16	putarent	3	4	4
17	hostium	2	4	2
18	locus	3	3	1
19	posset	3	3	11
20	dicet	1	5	7
21	videbat	2	4	0
22	quas	5	1	1
23	hic	3	3	1
24	hac	3	3	6
25	causam	5	1	0
26	eae	3	3	8
27	dicitur	5	1	0
28	bellorum	2	3	1
29	possit	2	3	7
30	re	3	1	4
31	fuisset	1	3	7
32	venerat	1	2	5
33	exercitui	1	1	3

^aEach tense, each case, and each conjugation were weighted by Messrs. Lohr and Latshaw on the basis of frequency of occurrence. They decided that *dicit* was the most frequently occurring form of

Conclusion of Table 16

B. Forms Not Included in Lohr-Latshaw Test

Frequency Rank	Form	Frequency in Cicero ¹⁰	Number of Students Missing
34	esse	68	3
35	dici	28	8
36	latus esse	27	9
37	visus	27	8
38	quid	19	8
39	videatur	18	3
40	putandus	16	8
41	dabitur	14	4
42	latus est	13	3
43	putatus est	13	4
44	visurus esse	12	10
45	ferens	10	1
46	datus sit	10	7
47	dedisse	7	4
48	diceretur	5	4
49	idem	2	8
50	visus erit	1	6
51	putatus esset	1	4
52	eosdem	1	1
53	videbatur	0	0
54	potuerit	0	10
55	alicui	0	10
56	quendam	0	3
57	ipsum	0	8
58	venturus	0	10
59	nullius	0	6

Table 17

Number of Forms Missed by the Students

6, 0; 10, 1; 4, 2; 5, 3; 7, 4; 3, 5; 4, 6; 8, 7; 7, 8; 1, 9; 3, 10; 1, 11.

Table 18

Forms¹¹ Missed by None of the Students

(The figures give the frequency rank of the forms) sunt, 5; videbatur, 53; dicitur, 27; videbat, 21; pars, 11; causam, 25.

Videbatur was not one of the forms chosen by Messrs. Lohr and Latshaw as relatively frequent in High School Latin. In fact no imperfect indicative passive is found in the First Oration against Catiline. The students were evidently familiar with *ba* as the sign of the imperfect tense, and with *tur* as the personal ending of the third person passive. *Dicitur* was one of the most infrequently occurring forms in the Lohr-Latshaw Test, as was *causam*. The latter was known probably because students were drilled very thoroughly on the first declension. *Sunt* and *pars* are the only words in the first half of the frequency list.

Only one form (*posset*) was missed by all the students. *Posset* was one of the forms in the Lohr-Latshaw Test, all of which are relatively frequent. As can be seen from Table 16, fourteen of the Lohr-Latshaw forms rank below *posset*, and all 26 of the forms not found in the

all the forms included in their Test, because they gave it a weight of six as a present indicative active form, and a weight of five as a part of a verb of the third conjugation. In other words, there were in their Test six present indicative active forms, and five forms of the third conjugation.

¹⁰I myself computed the frequency of these forms in the First Oration Against Catiline. In the case of the verb-forms I counted the number of present infinitives, active and passive, future passive indicatives, etc. The figure giving the frequency of the indefinite pronouns represents the actual number of instances of the several forms, i.e. in the First Oration Against Catiline *eosdem* occurs only once, *idem* only twice.

¹¹All the forms except *videbatur* were taken from the Lohr-Latshaw Test.

Lohr-Latshaw Test rank below it, that is, 40 of the 59 forms occur less frequently than this form, which was missed by all the students. Evidently the students were not familiar with *possum*, although they had had considerable opportunity to meet it in their reading.

Table 19

The Nine Most Frequently Occurring Forms, With the Number of Times They were Missed

dicit, 1; *dixerunt*, 7; *hostem*, 2; *est*, 1; *sunt*, 0; *veniant*, 7; *vidit*, 7; *locum*, 5; *eos*, 1.

Table 20

The Fifteen Easiest Forms (Missed by None or by not More than One Student), With their Frequency Rank

videbatur, 53; *dicitur*, 27; *sunt*, 5; *pars*, 11; *causam*, 25; *est*, 4; *dicit*, 1; *ferens*, 45; *quas*, 22; *hic*, 23; *bellorum*, 28; *locus*, 18; *alicui*, 55; *eos*, 9; *eosdem*, 1.

Only four of the forms in Table 20 rank high in frequency. These four forms (*est*, *dicit*, *sunt*, *eos*) are common to Tables 19 and 20. Why should *videbatur* and *alicui*, neither of which is found in the First Catilinarian Oration, be known by 10 and 11 of the students? *Eosdem* would also seem too rare a form (it occurs only once) to be known by all the students except one. From these data it can be said that only in the case of *est*, *sunt*, *dicit*, and *eos* does frequency of occurrence correlate with ease in recognition.

Table 21

Ten Rarest Forms (Not Found in First Oration Against Catiline), With the Number of Times They were Missed

videbatur, 0; *potuerit*, 10; *alicui*, 1; *quendam*, 3; *ipsum*, 8; *venturus*, 10; *nullius*, 6.

Table 22

Five Hardest Forms (Missed by Nine or More Students), With their Frequency Rank

latus esse, 36; *potuerit*, 54; *posset*, 19; *visurus esse*, 44; *venturus*, 58.

Venturus and *potuerit* are common to Tables 21 and 22. *Latus esse* is one of the most frequently occurring forms among the forms not used in the Lohr-Latshaw Test; fifteen forms occur less frequently than *visurus esse*. As has been stated, *posset* is in the Lohr-Latshaw Test and seemed unreasonably hard for the students. *Videbatur*, *alicui*, and *quendam* are very rare forms (missed by 0, 1, and 3 students) which seemed surprisingly easy for the students. These data show that only in the case of *venturus* and *potuerit* was there close correlation in difficulty and infrequent occurrence.

CONCLUSIONS

The following conclusions seem warranted by the facts set forth above.

(1) Frequency and difficulty in words, forms, and constructions in High School Latin do not correlate very closely.

(2) Latin words which have English derivatives are easily recognized even when they are relatively infrequent.

(3) Words that occur rarely more often prove to be hard for the students than frequently occurring words prove to be easy for them.

(4) Only two words are common to the lists of the thirteen hardest and the ten most infrequently occurring words.

(5) None of the four words known by all the students was in the list of the ten most frequently occurring words.

(6) Only one word (*civis*) is common to the lists of the ten easiest words and the ten most frequently occurring words.

(7) The construction occurring most frequently in High School Latin was the only construction missed by none of the students.

(8) There seems to be a closer correlation between difficulty and frequency of construction than between difficulty and frequency of words.

(9) Only two constructions are common to the lists of the ten least frequently occurring constructions and the nine hardest constructions.

(10) The rarest construction was missed by only six of the eleven students.

(11) 40 out of 59 forms occur less frequently than the form missed by all the students.

(12) Four forms are common to the lists of the nine most frequent and the fifteen easiest forms.

(13) Only two forms correlate closely in difficulty and rare occurrence.

(14) Further investigation is needed to discover what makes certain words, forms, and constructions difficult for students.

(15) Experiments should be carried on to determine what sort of drill and what quantity of drill are necessary to clinch the students' knowledge of difficult forms, words, and constructions.

(16) Very difficult constructions, forms, and words should be repeated often in the reading of 'made Latin' only if they are important and frequent in classical Latin.

(17) Difficulty in itself does not make the learning of a word, form, or construction important.

(18) Difficulty lists of relatively frequent Latin words, forms, and constructions should be made for use by teachers of Latin.

(19) More attention in drill should be paid to the difficult constructions, forms, and words which occur frequently enough to be important.

(20) Since students do not know certain words, forms, and constructions which they have met often in their reading, it seems plain that the mere meeting of these in reading is not sufficient even for recognition knowledge.

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THE CLASSICS AND THE MASSES

My topic, The Classics and the Masses, is, indeed, threadbare. But it is not ready for the discard, for the reason that no adequate solution of the implicit problem has, as yet, been found. The thesis of this paper is presented in the following statement: *Salvation of classical culture in the modern world depends upon isolation, in our minds and in our practice, of linguistic values from historico-literary-cultural values.*

The linguistic values of the study of Latin and Greek are real, but they are not great enough to justify for more than an insignificant fraction of the school population the devotion to them of more than a share of two years' study-time. It is the part of wisdom to abandon practices which were appropriate when Latin and Greek formed over fifty per cent of the curriculum in School and in College, and to adapt practice to educational conditions as they are now.

A plebiscite of student opinion in the small Colleges (expressed by the election of courses) has shown that Latin and Greek language courses cannot be maintained in these institutions unless they are subsidized in some way. One purpose of this paper is to discover what is the best form of subsidy.

It is now possible to study classical literature without the language grind. A generation ago this was not true. The existence of The Loeb Classical Library has revolutionized the situation. A teacher who has a scholar's mastery of the original can, through translations, convey enough of the literary value of the original to stimulate desire to get the spirit, to achieve true understanding, and to cherish appreciation—even love—of the contribution made by the Classics to human thought.

More and more it has been true that language courses have squeezed classical literature out of American Schools and Colleges. Very few Colleges give even one course that covers more than a mere fraction—gives more than a taste—of the extant writings of an important classical author. The somewhat fanatical insistence upon language study as the sole approach to literature had its origin in the conception of a 'Bohn' translation, or a 'handy literal' translation as the alternative. This insistence is not appropriate to the present day.

Study of literature must be by reading the literature, not by reading about it, or by reading mere samples of it.

Study of history, for an undergraduate student, can be satisfactorily organized only around the work of a modern historian, with such reading of original sources as the modern author recommends.

A fair appraisal will make clear that very little of that which is now read in School and College courses in Latin has any inherent value for the great majority of present-day students. Lucretius, Horace, Sallust, Tacitus—with perhaps Suetonius and one or two of Cicero's essays—are about the only Latin authors and writings that have the sort of creative originality which has value for modern civilization. Vergil's Aeneid was a splendid *tour de force* in the original. Separated from the language in which it was written it becomes bare and all

but meaningless. Plautus and Terence, Vergil, and other poets must be retained for those who are specializing in literature; but we must bear in mind that only ten per cent of our College students are specializing in literature.

A College course in Classics, then, will consist chiefly of Greek literature and Roman history. The teachers best qualified to give these courses will, obviously, be those who have steeped themselves in the original documents, namely, the teachers of language. These courses, realistically adapted to the educational needs of the masses, will provide the necessary subsidy for maintenance of language courses. In administrator's terminology, the teacher of the Classics will have in these culture courses a sufficient number of student hours to make it possible for him to offer language courses to very small classes.

Some teachers are getting the student-hours by giving courses in Greek art, or in Greek life, or in Roman life. A distinction should be noted here. These courses make their appeal largely as entertainment, and are different from the thorough-going study of classical civilization which is here contemplated—a study to be pursued in a series of courses running through several terms.

Language courses in Colleges should be maintained. But they should be frankly recognized for what they are, vocational courses for prospective teachers of Latin and Greek. The proportion of students electing such courses should not be very much greater than the ratio of classical teachers to the general population.

In Secondary Schools two or more years of foreign language study probably should be required of nearly all students, primarily as linguistic training. It can hardly be denied that the value derived from such study of Latin is greater than the value derived from the study of any modern language¹.

Adequate linguistic training for two years in Secondary Schools will create the capacity to enter into the spirit of classical literature, without the necessity of further language study in College.

Secondary School teachers of the Classics should concentrate on linguistic training, and should select as reading material whatever is most suitable for that purpose, without submitting to pressure because of the place that any particular work holds in the history of that literature. College teachers of the Classics should find their main work in transmitting the classical culture on whatever linguistic foundation is laid in the Secondary Schools, and only incidentally should offer language courses as vocational training for prospective teachers.

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AN ILLUSTRATION OF VERGIL, AENEID

2.692-698

In the issue of The Times <of London> dated Saturday, August 12, 1933, on page 10, column 2, the follow-

¹Compare my article, The Effect of Foreign Language Study Upon Habits of Thinking, THE CLASSICAL WEEKLY 25.1-5 (October 5, 1931).

ing report appeared, under the caption Fireball in Cornwall.

During a fierce thunderstorm, accompanied by continuous vivid lightning and torrential rain, yesterday morning at Redruth, Cornwall, a fireball fell near a chapel in the Plangary district. It narrowly missed two young men walking along the road, and appeared to come obliquely from the south. When it struck the ground a deep yellow glow appeared leaving behind a smell of sulphur fumes.

With this description compare Vergil, Aeneid 2.692-698:

Vix ea fatus erat senior subitoque fragore
intonuit laevum, et de caelo lapsa per umbras
stella facem ducens multa cum luce cucurrit.
Illam summa super labentem culmina tecti
cernimus Idaea claram se condere silva
signantemque vias; tum longo limite sulcus
dat lucem et late circum loca sulphure fumant.

There is here a good example of Vergil's method of constructing incidents partly from direct experience, partly from different passages of literature, Greek and Roman. On this compare Professor Knapp, *The School Review* 13 (1905), 498-499. In this instance Vergil seems to have remembered such passages as Homer, *Odyssey* 12.415-417, a tradition that the star of Venus guided Aeneas, and also the different outlooks of Greeks and Romans on phenomena of the sky. But he clearly used direct experience also, and adapted his composite account to some actual 'fireball' that he had seen.

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<Mr. Knight has in mind the following passage:

"Fourthly, I am inclined to believe that something can be done also to make our pupils gain some appreciation of the sources of the Aeneid and of the methods by which Virgil made use of his materials. I am aware that many students' total unacquaintance with Greek, and all students' imperfect mastery of Latin and their necessarily limited outlook upon the field of classical literature present great difficulties here; but something at least can be done. To take but one case: There is possibility of showing to intelligent pupils the skill with which Virgil has worked out the Palinurus episode in Book VI; how he has utilized materials got from one passage in the *Iliad* and two passages in the *Odyssey*, combined with matter obtained from local traditions current both in Etruria and Lucania, and yet has put the whole together so skilfully that the ordinary reader does not detect the sutures, beside producing a passage which, though like in details to various other things, is itself in reality a new creation. Work of this sort will go far to prevent, or at least to correct, erroneous ideas on the student's part, by throwing important light on the question of Virgil's originality; for it will help him, first or all, to understand aright the attitude of the Roman literary world to the whole question of the materials gathered by literary predecessors; and, secondly, it will show how independent, after all, is the Virgilian product, even when the materials are wholly or almost wholly borrowed from other works".

This passage occurred in an article entitled *Some Points in the Literary Study of Virgil*, which I published in *The School Review* 13 (1905), 492-508. In the passage quoted above the words "combined... Lucania" must have been particularly in Mr. Knight's mind when he made reference to my paper. Those words imply, if they do not say in set terms, that Vergil was deeply indebted to his personal experiences. I believe that firmly. Some illustrations of the matter, if any are needed, may be gathered from two things that occur to me at the moment. In *THE CLASSICAL WEEKLY* 15.201-205 (May 15, 1922) Dr. Mary B. Peaks had an article entitled *Vergil's Seamanship*. She is fully convinced that Vergil had some definite, practical knowledge of boats, and had actually been caught in a storm or in storms at sea. She thinks also that, in describing the boat-race (Aeneid, Book 5) Vergil "is partly describing sports which he and many of his readers had seen".

In January, 1912, Sir Archibald Geikie, a geologist, then President of The <English> Classical Association, delivered, as his Presidential address, a discussion of the literary and artistic treatment among the Romans of certain aspects of nature. This address he expanded into a volume entitled *The Love of Nature Among the Romans During the Later Decades of the Republic and the First Century of the Empire* (London, Murray, 1912). I gave, with comments, extracts from this work in *THE CLASSICAL WEEKLY* 14.49-51, 57-59, 16.17-18, 17.57-59. In the first and the last of these articles I was concerned with Sir Archibald Geikie's comments on Vergil's treatment of certain aspects of nature. The reader will find abundant proof there that Vergil was a close observer and student of nature, and that he used the knowledge thus gained not only in his Georgics, but in all his writings. C. K. >.

CONCERNING HIC AND ILLE

In *THE CLASSICAL WEEKLY* 24.46-47 Mr. Bernard Allen draws attention to a passage which he quotes as from Cicero, *Pro <sic> Imperio Cn. Pompei* 19: *Haec fides atque ratio pecuniarum quae Romae, quae in foro versatur implicata est cum illis pecuniis Asiaticis et cohaeret. Ruere illa non possunt ut haec non eodem labefacta motu concidant...* In this passage, he points out, the demonstrative adjectives *haec* and *illa* bear meanings exactly opposite to those that they usually bear: *haec* here means 'the former', *illa* means 'the latter'. The reason for this, according to Mr. Allen, is that "in this passage geographical position is more important than position in the speech..." I should like to add that there is nothing abnormal in this usage, nor is it confined to passages in which an attempt is made to define precisely geographical position. Where a Latin writer considered the former of two things mentioned as the more important of the two, he could and frequently did use *hic* in the sense of 'the former' and *ille* in the sense of 'the latter'. Presumably it was with the knowledge that this is so that Professor West made the statement in his *Latin Grammar*, 426 (New York, Appleton, 1902) to which Mr. Allen takes exception: "*hic* and *ille* in contrast often mean... *the former... the latter...*" Examples are not uncommon. Cicero supplies the following in *Pro Sulla* 8: *me natura misericordem, patria severum, crudelem nec natura nec patria esse voluit... illa enim ad breve tempus severitatem postulavit, haec in omni vita misericordiam lenitatemque desiderat.* Cicero regards nature as more important, or, at any rate, as having greater influence than *patria*. Accordingly it is designated by *haec*. In 30.30.19 Livy writes *melior tutiorque est certa pax quam sperata victoria: haec in nostra, illa in deorum manu est.* The latter half of this passage was quoted by Professor West in his *Latin Grammar*, 426. Now that the reference has been supplied, Mr. Allen can see for himself that Professor West's translation of it was accurate. In Ovid, *Tristia* 1.9.11-12 we find *utque comes radios per solis euntibus umbra est cum latet hic pressus nubibus illa fugit...* This can be translated by 'as those who pass through the sun's rays are accompanied by a shadow, but, when the sun <*hic*> is hidden behind clouds, the shadow <*illa*> disappears...' Here Ovid reckons the sun as more important than the shadow, and so *hic* is made to refer to it, not to *umbra*.

The usage of the words can, of course, be affected by the respective geographical positions of the two things referred to. Compare, for example, Ovid, *Tristia* 1.2.23-24 *quocumque aspicio, nihil est nisi pontus et aer, fluctibus hic tumidus, nubibus ille minax.* Here Ovid, as a passenger on a boat, naturally regards the sea as being nearer to him than the sky is, and accordingly he applies *hic* to the sea. In view of all this there is surely no need to use the heavy expressions suggested by Mr. Allen, "things over there", and "things here", to translate *illa* and *haec* in the passage from Cicero, *De Imperio Cn. Pompei*.

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